

# DOCTOR OF MEDICAL SCIENCE (DMSC)

## **DMS 9010: Evidence-Based Medicine. (3 credit hours)**

This course will cover key principles of evidence-based medicine. Research ethics and critical appraisal of the medical literature will be examined. It will include instruction about how to define and frame clinical questions, use common biomedical databases to search for relevant evidence, and how to critically interpret studies through interpretation of basic biostatistical methods. Focus will be on finding relevant medical/scientific literature and assessing its validity to answer clinical questions relative to choice of therapy, risk of harm, determining prognosis, and overviews of existing evidence. Instruction will include basic literature search skills, fundamentals of study design, sampling methods, bias, validity, confounding, hypothesis testing, an overview of common statistical tests, and the limits of medical research. Students in the PA Education and Healthcare Administration and Leadership concentrations will develop a proposal for their doctoral project to be carried forward into the DMS 9011-DMS 9013 Scholarly Project Series. For those in the Bridge Advanced Professional Practice programs this course will prepare them for DMS 9014 Bridge Scholarly Project.

## **DMS 9011: Scholarly Project I: Proposal. (3 credit hours)**

Students will choose their topic, decide on its design, and prepare a proposal of what they intend to accomplish. By the end of this course students will identify a timely and relevant topic that will be the focus of their doctoral project. They will conduct background research to focus, refine, and narrow their work to a relevant clinical topic that is of manageable scope and find appropriate evidence in the medical literature to support their ideas. The course will culminate with a written outline describing their Doctoral Project plan supported by citations using AMA 11th ed. style, with appropriate sections and levels of headings. Prerequisite: DMS 9010 Evidence Based Medicine.

## **DMS 9012: Scholarly Project II: Development. (3 credit hours)**

During this course students will write the first draft of their project utilizing practices consistent with Doctoral-level professional writing. Students will also select which journal they would like to submit their project to using strategies to improve the likelihood of the paper being accepted including locating and reviewing the online "instructions for authors", using resources that guide professional writing, like style manuals, and demonstrate the appropriate use of an introduction that appropriately establishes the relevance of their topic for their target audience. Writing skills will be evaluated in terms of clarity and conciseness through editing, and students are expected to identify and correct common spelling, grammatical, punctuation, and formatting errors. This course will culminate in a clearly organized first draft and an annotated Bibliography. Prerequisite: DMS 9011 Scholarly Project I: Proposal.

## **DMS 9013: Scholarly Project III: Submission. (3 credit hours)**

This course will culminate in a publishable scholarly report. During this course students will navigate the Manuscript Submission and Approval Process of their chosen journal. They will submit a manuscript consistent with the journal's submission process, including commonly associated forms and processes, like copyright transfer, conflict of interest forms, and confirmation of authorship rights. The students will learn the possible response to expect after submission, including whether their paper is accepted, requires revisions, or rejected, and possible ways to respond to a reviewer's critique of their paper. Prerequisite: DMS 9012 Scholarly Project II: Development.

## **DMS 9014: Bridge Scholarly Project. (3 credit hours)**

The purpose of this course is to guide students through the development and completion of a Doctoral-Level scholarly project that improves their ability to provide and influence evidence-based patient care, and to lead change within healthcare organizations. During this course students will learn how to design, execute, and disseminate a Doctoral-Level Scholarly Project through collaborations within their professional networks, and will learn about navigating professional journal peer-review and submission processes. Students will perform thorough literature searches and critically evaluate relevant medical literature, and they will create a detailed outline for a scholarly paper that adheres to the standards and requirements of a selected medical journal. They will then compose and format a research paper that follows the specific guidelines of that journal, and effectively execute the steps involved in submitting a manuscript and demonstrate the ability to critically analyze and respond to peer review feedback, making necessary revisions to enhance the quality of the manuscript. Prerequisite: DMS 9010 Evidence Based Medicine.

## **DMS 9020: Teaching in PA School. (3 credit hours)**

This course provides PA school faculty with a concrete foundation in best practices of teaching and learning within PA education. Students will develop practical approaches to improving PA-student learning, engagement, and teaching methods through frameworks grounded in educational theory and/or the medical education literature. The course is intended to improve PA faculty teaching effectiveness and their students' learning. The successful student will comprehend key educational theories and apply them to teaching practices, and design and implement effective, student-centered learning activities that enhance engagement and promote active learning. Students will also integrate evidence-based teaching methods and educational technologies into curriculum planning and instructional design and develop and implement formative and summative assessment strategies to measure PA-student learning outcomes and provide constructive feedback. Finally, these students will engage in reflective practices to assess and improve teaching effectiveness based on peer feedback and student evaluations.

## **DMS 9021: PA Program Design & Delivery. (3 credit hours)**

This course provides PA faculty with a concrete foundation in curriculum and administrative best practices for use within PA education. Students will learn to apply educational theory and/or evidence from the medical education literature to the development of practical approaches for developing, implementing and maintaining curricular and program operational components. Students will learn to design teaching and assessment practices that challenge and facilitate learners to practice high-quality, safe, and compassionate care by employing strategies that demonstrate a commitment to learners' success, well-being, and growth into their professional role. Other features of this course are instruction in active listening, fostering open dialogue, and participation in problem-solving to facilitate learner-centered approaches and improve team performance. The intention of the course is to improve PA faculty member' effectiveness as members and leaders of a PA educational team.

**DMS 9022: PA Education Technology. (3 credit hours)**

This course is designed to give students a thorough grasp of how to successfully incorporate educational technology into PA programs. Throughout this course, students will be exposed to various educational technologies as the curriculum will cover principles of effective teaching integration, strategies for creating engaging digital teaching materials, and methods for utilizing data analytics to inform education practices. Students will examine ethical and privacy issues related to use of technology in education, ensuring they are prepared to address these concerns in their professional careers. The intent of this course is how to integrate various educational technologies to enhance student learning outcomes, create interactive and engaging digital resources, and implement simulation and telemedicine technologies, based on ongoing evaluation of the impact on student learning, as well as to understand and apply ethical and privacy considerations.

**DMS 9023: PA Accreditation Standards. (3 credit hours)**

This course provides a concrete foundation in accreditation compliance, program evaluation, and program leadership. The intention is to apply educational theory and lessons from the medical education literature to the development of practical approaches for ensuring compliance with ARC-PA accreditation standards through ongoing program evaluation. Students will learn to design, implement, and evaluate multiple means of assessment that align with program learning objectives and accreditation standards using student performance data and evaluation metrics to identify trends, guide instructional decisions, and recommend actionable improvements for course or program outcomes. DMSc students will learn how to construct a comprehensive quality improvement plan for a course or program, integrating measurable outcomes, stakeholder engagement, and evidence-based practices to enhance educational effectiveness. The goal of the course is to improve PA faculty members' understanding of accreditation and program evaluation to support their effectiveness as leaders within their PA programs and the profession.

**DMS 9030: Med-Ed Practicum I. (4 credit hours)**

In each of the four quarters DMSc students will log at least 160 hours documenting their activities related to teaching, scholarship, and service. Unemployed students, or those not employed in education, will receive instruction in effective job-search skills specific for academic positions, and log their education-focused job-search activities, incorporating lessons learned from their other courses in the concentration. Through these activities DMSc students will apply learning-theory and lessons from the medical education literature to increase their teach effectiveness, applying the principles of student centeredness, communication, professionalism and role modeling, program and curriculum design and implementation, and program Evaluation. During these practicum DMSc students will design, develop, and execute projects that improve student learning outcomes, program curriculum or program operations, and develop professional medical writing skills to advance the PA profession.

**DMS 9031: Med-Ed Practicum II. (4 credit hours)**

In each of the four quarters DMSc students will log at least 160 hours documenting their activities related to teaching, scholarship, and service. Unemployed students, or those not employed in education, will receive instruction in effective job-search skills specific for academic positions, and log their education-focused job-search activities, incorporating lessons learned from their other courses in the concentration. Through these activities DMSc students will apply learning-theory and lessons from the medical education literature to increase their teach effectiveness, applying the principles of student centeredness, communication, professionalism and role modeling, program and curriculum design and implementation, and program Evaluation. During these practicum DMSc students will design, develop, and execute projects that improve student learning outcomes, program curriculum or program operations, and develop professional medical writing skills to advance the PA profession.

**DMS 9032: Med-Ed Practicum III. (4 credit hours)**

In each of the four quarters DMSc students will log at least 160 hours documenting their activities related to teaching, scholarship, and service. Unemployed students, or those not employed in education, will receive instruction in effective job-search skills specific for academic positions, and log their education-focused job-search activities, incorporating lessons learned from their other courses in the concentration. Through these activities DMSc students will apply learning-theory and lessons from the medical education literature to increase their teach effectiveness, applying the principles of student centeredness, communication, professionalism and role modeling, program and curriculum design and implementation, and program Evaluation. During these practicum DMSc students will design, develop, and execute projects that improve student learning outcomes, program curriculum or program operations, and develop professional medical writing skills to advance the PA profession.

**DMS 9033: Med-Ed Practicum IV. (4 credit hours)**

In each of the four quarters DMSc students will log at least 160 hours documenting their activities related to teaching, scholarship, and service. Unemployed students, or those not employed in education, will receive instruction in effective job-search skills specific for academic positions, and log their education-focused job-search activities, incorporating lessons learned from their other courses in the concentration. Through these activities DMSc students will apply learning-theory and lessons from the medical education literature to increase their teach effectiveness, applying the principles of student centeredness, communication, professionalism and role modeling, program and curriculum design and implementation, and program Evaluation. During these practicum DMSc students will design, develop, and execute projects that improve student learning outcomes, program curriculum or program operations, and develop professional medical writing skills to advance the PA profession.

**DMS 9040: Healthcare Management. (3 credit hours)**

Students will become acquainted with how management tools can be applied in healthcare delivery and administration. The course covers the management functions of planning, organizing, communicating, budget planning, documenting, and legal aspects of human resources, for achieving positive organizational outcomes. This course also provides PAs with a concrete foundation in healthcare finance, resource allocation, and administration. This course is designed to provide a basic framework from which to consider ethical consequences, as well as give healthcare professional tools to develop their own management styles. The intent is to assist students develop practical approaches to improving the excellence and delivery of healthcare.

**DMS 9041: Organizational Behavior. (3 credit hours)**

This course examines how the personal characteristics of individual members influence the effectiveness and productivity of organizations and the job satisfaction of their members. Organizations comprise three levels: the individual, the group or department, and the overall organization itself. This course will focus on the problems and challenges leaders face in dealing with the individual and the small groups in the organization. Special attention will be given to the role of teams in organizations, the stages of team development, and actions that can support the development of effective teams. The realities of interpersonal processes are considered through examination of the roles of power, politics, and conflict in organizations. Organizational change considered from the human side is then explored with a focus on understanding how and why people react to organizational change and identifying opportunities for enhancing the effective implementation of change.

**DMS 9042: Healthcare Law & Policy. (3 credit hours)**

DMSc students will explore relevant healthcare law and policy issues that impact the PA profession and healthcare delivery systems. Emphasis will be placed on leadership roles and professional relationships, and advocacy for the PA profession. Focus will be on the regulatory environment that affects PA practice and healthcare system governance and operations. DMSc students will evaluate key healthcare laws and regulations that impact the practice of PAs and healthcare delivery systems, examine the processes involved in healthcare policy development, and identify and analyze the leadership roles of PAs within the healthcare systems. They will also assess ethical issues related to healthcare law and policy, considering how they influence decision-making and professional practice for PAs. After learning how legal and policy issues affect patient care delivery and public health outcomes, DMSc students will identify opportunities for improvement, and develop strategies to effectively advocate for their patients, co-workers and the PA profession in the context of changing healthcare policies and regulations.

**DMS 9043: Regional & Global Health. (3 credit hours)**

This course introduces important local, regional, and global health issues, including key areas of disease burden, and the leadership role that PAs can play in solving these problems. Focus areas include social determinants of health, measuring socioeconomic status, local, regional, and global health disparities, health and human rights, medical anthropology, and ethics in global health research. The purpose of the course is to expand PAs' understanding of the impact of these factors on the diverse populations with particular attention paid to the health status of women, children, and the poor. Students will examine case studies of successful health interventions to understand the features of successful programs and discuss ethical considerations and the rights of individuals and communities affected by health policies. The intent is to prepare PAs to address health disparities by implementing interventions to improve health at local, national, and global levels.

**DMS 9050: Health Admin Practicum I. (4 credit hours)**

During each of the four quarters DMSc students will apply what they learned from the other courses during in their normal professional activities and log at least 160 hours per quarter documenting how their undertakings relate to the American College of Healthcare Executives (ACHE) competencies. These competencies include Communication and Relationship Management, Organizational Management, Leadership, and application of Business Skills and knowledge. They will also be encouraged to participate in initiatives or activities that advocate healthcare policy improvements, demonstrating the ability to apply knowledge from coursework to real-world contexts. Unemployed students will receive instruction in effective job-search skills, and will log their employment search activities, incorporating lessons learned from their other courses.

**DMS 9051: Health Admin Practicum II. (4 credit hours)**

During each of the four quarters DMSc students will apply what they learned from the other courses during in their normal professional activities and log at least 160 hours per quarter documenting how their undertakings relate to the American College of Healthcare Executives (ACHE) competencies. These competencies include Communication and Relationship Management, Organizational Management, Leadership, and application of Business Skills and knowledge. They will also be encouraged to participate in initiatives or activities that advocate healthcare policy improvements, demonstrating the ability to apply knowledge from coursework to real-world contexts. Unemployed students will receive instruction in effective job-search skills, and will log their employment search activities, incorporating lessons learned from their other courses.

**DMS 9052: Health Admin Practicum III. (4 credit hours)**

During each of the four quarters DMSc students will apply what they learned from the other courses during in their normal professional activities and log at least 160 hours per quarter documenting how their undertakings relate to the American College of Healthcare Executives (ACHE) competencies. These competencies include Communication and Relationship Management, Organizational Management, Leadership, and application of Business Skills and knowledge. They will also be encouraged to participate in initiatives or activities that advocate healthcare policy improvements, demonstrating the ability to apply knowledge from coursework to real-world contexts. Unemployed students will receive instruction in effective job-search skills, and will log their employment search activities, incorporating lessons learned from their other courses.

**DMS 9053: Health Admin Practicum IV. (4 credit hours)**

During each of the four quarters DMSc students will apply what they learned from the other courses during in their normal professional activities and log at least 160 hours per quarter documenting how their undertakings relate to the American College of Healthcare Executives (ACHE) competencies. These competencies include Communication and Relationship Management, Organizational Management, Leadership, and application of Business Skills and knowledge. They will also be encouraged to participate in initiatives or activities that advocate healthcare policy improvements, demonstrating the ability to apply knowledge from coursework to real-world contexts. Unemployed students will receive instruction in effective job-search skills, and will log their employment search activities, incorporating lessons learned from their other courses.